TITLE:

STORAGE DEVICE

CROSS-REFERENCE TO RELATED APPLICATIONS:

This application is a continuation-in-part of copending U.S. Serial Number 09/386,492, also titled "Storage Device", filed 30 August 1999.

STATEMENT AS TO RIGHTS TO INVENTIONS MADE UNDER FEDERALLY-SPONSORED RESEARCH AND DEVELOPMENT:

None

FIELD OF THE INVENTION:

This invention relates generally to storage devices. In particular, this invention relates to vertically-hung storage devices for use in spaces having limited vertical clearance.

BACKGROUND:

The provision of adequate storage space is an age-old problem. The need to eradicate, or at least diminish, clutter and the appearance of disorganization has been the subject of a high degree of inventive energy. For example, U.S. Patent No. 4,129,909 to Riehl is directed to an appliance adapted to engage the underside of the

mattress of a bed and extend over the box spring, each extended end having pockets therein for the storage of bedroom articles.

U.S. Patent No. 5,533,534 to Cariello et al. discusses shower accessory that holds various toiletries in an organized method so as to be easily accessible during bathing, and is made out of an attractive toweling material, such as terry-cloth, so as to coordinate with other towels and decor of the bathroom in which the shower is located, and to be easily washable and resistant to mildewing, corrosion, and destruction.

U.S. Patent No. D300,399 to Krugman shows a vertically oriented multi-pocketed storage bag.

U.S. Patent No. D358,284 to Hill is directed to a bed storage compartment. The compartment fits between the mattress and headboard, and includes a securing mechanism that fits between the mattress and box spring.

U.S. Patent No. D402,840 to Servis sets forth a convertible hanging/carrying bag capable of being mounted on a door surface.

The need for storage is even greater in applications having tight spaces, such as pleasure boats and recreational vehicles. Although each of the patents mentioned provides additional storage space, none provides adequate storage in demanding, limited-space environments. Furthermore, despite their advantages, known devices fail to take full advantage of unused spaces in tight quarters. It can be seen from the foregoing that, despite the existence of known devices, the need exists for an inexpensive, compact storage device capable of providing storage capacity in vertically limited, previously unused locations.

SUMMARY:

These and other objects are achieved by providing a storage arrangement including a generally planar back panel. A plurality of storage compartments are connected to a front surface of the back panel. A securing mechanism attaches the back panel to the planar surface of the pedestal. The back panel is generally horizontally oriented, with a width substantially greater than its height. The storage arrangement can be provided in the context of a recreational vehicle having a cushioned support component elevated on a pedestal having at least one exposed, vertically oriented, planar surface. In such an environment, the back panel will have a height less than the height of the planar surface of the pedestal.

The back panel and storage compartments can be made from a flexible material, preferably a textile material such as canvas. The securing mechanism can be provided as a plurality of apertures passing through the back panel. A plurality of fasteners, for example, screw fasteners, are secured through the apertures and into mounting surface.

The apertures can be provided as grommets.

Alternative securing mechanisms, such as hook-and-loop fasteners, can also be provided.

The compartments can be formed from a continuous front panel divided into compartments by spaced-apart, vertical separation seams.

A method of mounting a storage arrangement is also disclosed. The method is described in the context of a recreational vehicle having a cushioned support

component elevated on a pedestal having at least one exposed, vertically oriented, planar surface. In a first step, a generally planar back panel having a height less than the height of the planar surface of the pedestal is provided. Next, a plurality of storage compartments connected to a front surface of the back panel are provided. Finally, the back panel is secured to the planar surface of the pedestal.

The features of the invention believed to be patentable are set forth with particularity. The invention itself, however, both as to organization and method of operation, together with further objects and advantages thereof, may be best understood by reference to the following description taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS:

FIG. 1 is a front elevational view of a storage arrangement in accordance with the principles of the present invention.

FIG. 2 is a schematic sectional view taken generally along lines II-II of FIG. 1.

FIG. 3 is a sectional view similar to that shown in FIG. 2, showing another embodiment of a storage arrangement in accordance with the principles of the present invention.

FIG. 4 is a front elevational view of an alternative embodiment of a storage arrangement in accordance with the principles of the present invention.

FIG. 5 is a front elevational vi[illegible]f another alternative embodiment of a storage arrangement in accordance with the principles of the present invention.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

While this invention is susceptible of embodiment in many different forms, there is shown in the drawings, and will herein be described in detail, an exemplary embodiment, with the understanding that the present disclosure is to be considered as illustrative of the principles of the invention and not intended to limit the invention to the exemplary embodiments shown and described.

A storage arrangement 10 in accordance with the principles of the present invention is shown in FIG. 1. The storage arrangement 10 includes a generally horizontally oriented back panel 12 having a width W substantially less than its height H. A plurality of storage compartments 14 are connected to the back panel 12. The compartments 14 can be formed from a continuous front panel 16, divided into compartments by spaced-apart, vertical separation seams 18. The compartments 14 thus formed resemble pleats, with each compartment having an interior volume defined by a horizontal cross-section that increases in area with the height of the compartments. The compartments 14 are thus expandable to receive a wide variety of articles to be stored, such as shoes or tools. It has been found that outer dimensions of 12.5 inches in height by 45 inches in width for the back panel 12 are particularly advantageous. Of course, it is contemplated that the back panel 12 and compartments 14 will be sized and configured as necessary to accommodate the particular items to be stored.

The back panel 12 and compartments 14 can be made from a flexible material, preferably a textile material such as canvas. The back panel 12 can be provided with side edging 20 and bottom edging 22 for increased strength and wear resistance.

As seen in FIGS. 1 and 2, the back panel 12 is secured to a mounting surface 24. In the embodiment shown in FIGS. 1 and 2, the back panel 12 is provided with a plurality of apertures, here illustrated as copper-plated mounting grommets 26. A plurality of fasteners 28, for example, screw fasteners, are secured through the grommets 26 and into the mounting surface 24.

The present invention finds particular utility in the context of a recreational vehicle having a cushioned support component 30 elevated on a pedestal 32. The mounting surface 24 constitutes an exposed, vertically oriented, planar surface of the pedestal 32. An alternative securing arrangement is shown in FIG. 3, in which hook-and-loop fasteners, such as VELCRO, are used to secure the back panel 12' to the mounting surface 24'.

FIG. 4 illustrates an alternative embodiment of a storage device 36. The storage device 36 includes an upper row of storage compartments 38, 40, and 42, and a lower row of storage compartments 44, 46, and 48. The compartments 38-48 are formed with continuous front panels and vertical seams as in the FIG. 1 embodiment, and also resemble pleats, with each compartment having an interior volume defined by a horizontal cross-section that increases in area with the height of the compartments.

FIG. 5 illustrates another alternative embodiment of a storage device 50. The storage device 50 includes a plurality of storage compartments 52, 54, and 56 formed with continuous front panels and vertical seams as in the previously-described

embodiments. The compartments 52-56 also resemble pleats, with each compartment having an interior volume defined by a horizontal cross-section that increases in area with the height of the compartments. The compartment 52 is provided with a height greater than that of the compartments 54 and 56, thus enabling the storage device 50 to accommodate articles in a wider variety of sizes.

While details of the invention are discussed herein with reference to some specific examples to which the principles of the present invention can be applied, the applicability of the invention to other uses and equivalent components thereof will become readily apparent to those of skill in the art. For example, it is contemplated that the present invention could be fabricated from any suitable material, such as 10 oz. cotton duck canvas or synthetic fabric. Alternatively, the present invention could be formed from a relatively rigid material, such as thermoplastic (PVC, PP, PE, etc.) by any suitable method, such as injection molding or thermoforming. The present invention permits the storage of shoes, socks, paperback books, or any item you routinely needed, along the pedestal of an RV's queen size bed.

Accordingly, it is intended that all such alternatives, modifications, permutations, and variations to the exemplary embodiments can be made without departing from the scope and spirit of the present invention as defined by the appended claims.